



A PIECE FOR PLACING AGAINST AN ELEMENT OF BODYWORK, AN
ELEMENT OF BODYWORK SUITABLE FOR RECEIVING SUCH A PIECE,
AND AN ASSEMBLY COMPRISING SUCH A PIECE AND SUCH AN
ELEMENT OF BODYWORK

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1) Technical field to which the invention relates

The invention relates to the field of pieces for the
automobile industry that include at least a portion made
of plastics material.

10 More precisely, the invention relates to a piece for
placing against an element of bodywork, to an element of
bodywork suitable for receiving such a piece, and to an
assembly of such a piece and such an element of bodywork.

15 A particular application is fixing a piece of
plastics material to a bumper skin made of plastics
material, said piece constituting, for example, a sensor
support.

2) Known state of the prior art

20 Various solutions have already been proposed for
fixing a piece of plastics material on a bumper skin, or
more generally on a another piece of plastics material
used as an element of bodywork. The piece to be put into
place is often a support for a functional member of the
25 vehicle, such as a sensor, for example. It possesses a
face which is to be kept parallel to the bodywork
element. Known solutions make use of rivets, screws,
snap-fastening, or welding.

30 Amongst those solutions, some preserve the outside
appearance of the element supporting the piece of
plastics material, in particular by avoiding any visible
fastener means or heat marks.

35 The present invention belongs to this category of
fastener means which preserve the appearance of the
bodywork element receiving the plastics material part
that is to be fastened thereto. The invention provides a
novel alternative to prior art solutions.

3) Summary of the invention

The present invention provides a piece for placing against a face of a bodywork element, the bodywork element including on said face a fastening projection made of plastics material, said piece having a fastening portion made of plastics material configured to form a tab which, when the piece for placing against the bodywork element is in position, extends parallel to the projection and can be secured to said projection by material melting.

The term "material melting" is used to mean any method which unites the material constituting the tab to the material constituting the projection. This may comprise welding, soldering, or a chemical reaction.

Preferably, the projection formed on the face of the bodywork element is longer than the tab on the piece for placing, so as to act as a guide for positioning the piece for placing against the bodywork element.

According to other characteristics of the invention:

- the bodywork element is a bumper skin;
- the piece for placing is a sensor support; and
- a plurality of projections formed on the bodywork element enable the piece for placing to be positioned accurately against the bodywork element.

The invention also provides a bodywork element including a fastening projection for a piece for placing against said bodywork element, wherein said projection is shaped so that when the piece is in position on the bodywork element, the projection extends parallel to a fastening tab belonging to said piece for placing.

The invention also provides an assembly constituted by the piece for placing and the bodywork element as described above.

4) Brief description of the drawing

The invention will be better understood on reading

the following description given purely by way of example and made with reference to the accompanying drawing, in which:

5 - Figure 1 shows a bumper skin and a portion of a sensor support; and

 - Figure 2 is analogous to Figure 1 and shows the same part after material has been melted.

5) Detailed description of at least one embodiment

10 In the two figures, the following references are used:

 1 = bumper skin;

 2 = inside face of bumper skin;

15 3 = part of a central support having a face 3f for placing against the inside face;

 4 = projection projecting from the inside face;

 5 = tab for extending parallel to the projection; the tab is smaller than the projection; and

20 6 = melted material that has led to the material constituting the projection and the tab being mixed together.

 It can be seen that the invention is not limited to the embodiment described above.

25 For example, in a variant, each part could be constituted in hybrid manner out of a metal portion and a portion made of plastics material, in locations suitable for enabling such a piece to be fastened to a bodywork element that may itself also be a hybrid element.

30 In another variant, the faces that are for placing one against the other are not plane, but possess, for example, curvature that is continuous or discontinuous.